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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/164,509	09/30/1998	REINHARD KLEMM	KLEMM-2	6743

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EXAMINER	
WILLETT, STEPHAN F	
ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 03/03/2003 12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/164,509	Applicant(s) Klemm
	Examiner Stephan Willett	Art Unit 2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Dec 30, 2002* .

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-29* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Response to Arguments

1. In view of the Appeal Brief filed on 12/30, 2002, PROSECUTION IS HEREBY REOPENED as set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111; or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Multiple Rejections **(I-III)**

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

I. Horvitz et al. in view of Bryant

3. Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horvitz et

al. with Patent Number 6,067,565 in view of Bryant et al. with Patent Number 6,078,956.

4. Regarding claim(s) 1, 25, 27-29, Horvitz teaches a database communication network. Horvitz teaches prefetching Internet resources, col. 24, lines 4-5. Horvitz teaches fetching data dependent on round trip times based on send and receive times, col. 24, lines 12-20. Horvitz teaches the invention in the above claim(s) except for explicitly teaching fetching data dependent on GET round trip times. In that Horvitz operates to obtain data resources from the Internet the artisan would have looked to the Internet database arts for details of implementing prefetching of data. In that art, Bryant, a related database network, teaches that "measure response times as seen by an end user for requests submitted from a Web browser to a Web server", col. 2, lines 2-3 in order to provide better Web access. Bryant specifically teaches "the various components that comprise the 'response time' of a given HTTP request", col. 5, lines 7-26. Further, Bryant suggests that savings will result from implementing his downloading system. The motivation to incorporate limits on downloads insures that user data is readily available. Thus, it would have been obvious to one of ordinary skill in the art to incorporate the time limits as taught in Bryant into the prefetching system described in Horvitz because Horvitz operates with data constraints and Bryant suggests that optimization can be obtained when data limitations are respected Therefore, by the above rational, the above claims are rejected.

5. Regarding claims 2, 18, Horvitz teaches parallel processing, col. 88, lines 59-64 and col. 9, lines 64-65. Thus, the above claim limitations are obvious in view of the combination.

6. Regarding claims 3, 19, Horvitz teaches prefetching with accessed and non-accessed servers, col. 24, lines 11-16. Thus, the above claim limitations are obvious in view of the

combination.

7. Regarding claims 4, 20, Horvitz teaches fetching based on data size, col. 24, line 16 and col. 27, lines 55-58. Thus, the above claim limitations are obvious in view of the combination.

8. Regarding claims 5-7, 21-22, 26, Horvitz teaches fetching based on average access time statistics, col. 24, line 23-26 and Bryant teaches the same, col. 6, lines 64-66. Thus, the above claim limitations are obvious in view of the combination.

9. Regarding claims 8, Horvitz teaches prefetching after a page is obtained, col. 23, lines 53-55. Thus, the above claim limitations are obvious in view of the combination.

10. Regarding claims 9, Horvitz teaches updates based on new page selections, col. 9, lines 4-6. Thus, the above claim limitations are obvious in view of the combination.

11. Regarding claims 10, Horvitz teaches checking current cache for desired pages, col. 4, lines 35-37. Thus, the above claim limitations are obvious in view of the combination.

12. Regarding claims 11, 17, 23-24, Horvitz teaches filtering web pages, col. 23, lines 19-26. Thus, the above claim limitations are obvious in view of the combination.

13. Regarding claims 12-13, 24, Horvitz teaches filtering non-HTTP web pages, col. 23, lines 29-30. Thus, the above claim limitations are obvious in view of the combination.

14. Regarding claims 14, Horvitz teaches not prefetching large files, col. 24, lines 18-20 Thus, the above claim limitations are obvious in view of the combination.

15. Regarding claims 15-16, Horvitz teaches filtering based on response times, col. 28, lines 28-29 and col. 29, lines 35-37. Thus, the above claim limitations are obvious in view of the combination.

II. Kunkel et al. in view of Narayanaswami and Bryant

16. Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunkel et al. with Patent Number 5,961,6031 in view of Narayanaswami with Patent Number 6,182,1135 and Bryant et al. with Patent Number 6,078,956.

17. Regarding claim(s) 1, 4-8, 14-16, 20-22, 25-29, Kunkel teaches a database communication network. Kunkel teaches prefetching Internet resources, col. 5, lines 1-5. Kunkel teaches fetching data dependent on round trip times based on send and receive times and data size as "by keeping statistics corresponding to the number of corrupted data packets received on each of the upstream channels", col. 8, lines 14-16 and "if a hyperlink request acknowledge (ACK) is subsequently received with a pre-determined number of time periods", col. 11, lines 61-63. Kunkel teaches the invention in the above claim(s) except for explicitly teaching fetching data dependent on round trip times and data size. In that Kunkel operates to obtain data resources from the Internet the artisan would have looked to the Internet database arts for details of implementing prefetching of data. In that art, Narayanaswami, a related database network, teaches that present Web pages "are resolved periodically so as to maintain a list of currently active links", col. 6, lines 17-22 based on one or more variables. Narayanaswami specifically teaches "to employ the user-specified criterion or criteria (e.g. TOD, or TOD and LOC, or TOC, LOC, and UBW)", col. 7, lines 10-13. Further, Narayanaswami suggests that savings will result from implementing his downloading system. In that art, Bryant, a related database network, teaches that "measure response times as seen by an end user for requests submitted from a Web browser to a Web server", col. 2, lines 2-3 in order to provide better Web access. Bryant

specifically teaches "the various components that comprise the 'response time' of a given HTTP request", col. 5, lines 7-26. Further, Bryant suggests that savings will result from implementing his downloading system. The motivation to incorporate limits on downloads insures that user data is readily available. Thus, it would have been obvious to one of ordinary skill in the art to incorporate the time and capacity limits as taught in Narayanaswami into the prefetching system described in Kunkel because Kunkel operates with data constraints and Narayanaswami suggests that optimization can be obtained when data limitations are respected Therefore, by the above rational, the above claims are rejected.

18. Regarding claims 2 and 18, Kunkel teaches parallel fetching at col. 5, lines 28-29. Thus, the above claim limitations are obvious in view of the combination.

19. Regarding claims 3, 10 and 19, Kunkel teaches prefetching based on previous accesses at col. 5, lines 57-60. Thus, the above claim limitations are obvious in view of the combination.

20. Regarding claims 9, Kunkel teaches termination of prefetching at col. 13, lines 29-31. Thus, the above claim limitations are obvious in view of the combination.

21. Regarding claims 11-13 and 23-24, Kunkel teaches filtering data at col. 5, 7, 8, lines 65-67, 59-63, 6-10. Thus, the above claim limitations are obvious in view of the combination.

III. Kunkel et al. in view of Vaid et al. and Bryant

22. Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunkel et al. with Patent Number 5,961,6031 in view of Vaid et al. with Patent Number 6,119,235 and Bryant et al. with Patent Number 6,078,956.

23. Regarding claim(s) 1, 4-8, 14-16, 20-22, 25-29, Kunkel teaches a database

communication network. Kunkel teaches prefetching Internet resources at col. 5, lines 1-5. Kunkel teaches fetching data dependent on round trip times base on send and receive times and data size as "by keeping statistics corresponding to the number of corrupted data packets received on each of the upstream channels", col. 8, lines 14-16 and "if a hyperlink request acknowledge (ACK) is subsequently received with a pre-determined number of time periods", col. 11, lines 61-63. Kunkel teaches the invention in the above claim(s) except for explicitly teaching fetching data dependent on round trip times and data size. Kunkel teaches the invention in the above claim(s) except for explicitly teaching fetching data dependent on round trip times and data size. In that Kunkel operates to obtain data resources from the Internet the artisan would have looked to the Internet database arts for details of implementing prefetching of data. In that art, Vaid, a related database network, teaches a system to schedule downloading of data in order to provide optimized computer usage. Vaid specifically teaches "estimating a bit rate over a round-trip-time between the data source and the data receiver", abstract. Further, Vaid suggests that savings will result from implementing his downloading system. In that art, Bryant, a related database network, teaches that "measure response times as seen by an end user for requests submitted from a Web browser to a Web server", col. 2, lines 2-3 in order to provide better Web access. Bryant specifically teaches "the various components that comprise the 'response time' of a given HTTP request", col. 5, lines 7-26. Further, Bryant suggests that savings will result from implementing his downloading system. The motivation to incorporate limits on downloads insures that user limits are respected. Thus, it would have been obvious to one of ordinary skill in the art to incorporate the time and capacity limits as taught in Vaid into the prefetching system

described in Kunkel because Kunkel operates with data constraints and Vaid suggests that optimization can be obtained when data limitations are respected Therefore, by the above rational, the above claims are rejected.

24. Regarding claims 2 and 18, Kunkel teaches parallel fetching at col. 5, lines 28-29. Thus, the above claim limitations are obvious in view of the combination.

25. Regarding claims 3, 10 and 19, Kunkel teaches prefetching based on previous accesses at col. 5, lines 57-60. Thus, the above claim limitations are obvious in view of the combination.

26. Regarding claims 9, Kunkel teaches termination of prefetching at col. 13, lines 29-31. Thus, the above claim limitations are obvious in view of the combination.

27. Regarding claims 11-13 and 23-24, Kunkel teaches filtering data at col. 5, 7, 8, lines 65-67, 59-63, 6-10. Thus, the above claim limitations are obvious in view of the combination.

Response to Amendment

28. The broad claim language used is interpreted on its face and based on this interpretation the claims have been rejected.

29. The limited structure claimed, without more functional language, reads on the references provided. Thus, Applicant's arguments can not be held as persuasive regarding patentability.

30. Applicant suggests "Aggarwal fetches or retrieves resources only in response to a user request" in Paper No. 11, Page 4, lines 12-13. There is no teaching in any of the references that would limit their teachings as suggested by the piecemeal quotes cited, or that Bryant's estimation of response time could not be applied to prefetching as suggested by "to submit such

data to a Web server for collection", col. 2, lines 4-5 in Bryant. As admitted that "when to store the obtained resource in cache", Paper No. 11, Page 4, lines 13-14 is determined in "anticipation of a future request", see col. 9, lines 50-57, "popularity list", etc. In any event, Horvitz teaches "prefetching advantageously consumes processing time that would otherwise be wasted", col. 24, lines 4-5. Thus, Applicant's arguments can not be held as persuasive regarding patentability.

Conclusion

31. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is disclosed in the Notice of References Cited. A close review of the Mogul reference with Patent Number 6,243,761, col. 6, lines 22-24 is suggested. The other references cited teach numerous other ways to perform prefetching, thus a close review of them is suggested.

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephan Willett whose telephone number is (703) 308-5230. The examiner can normally be reached Monday through Friday from 8:00 AM to 6:00 PM.

33. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley, can be reached on (703) 308-5221. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

34. Any inquiry of a general nature or relating to the status of this application or pr

sfw

February 20, 2003

LE HIEN LUU
PRIMARY EXAMINER